

# DC-DC Astra AS3000R-CF



## Non-Isolated Single Output

### FEATURES :

Open frame packages

Remote On/Off

Adjustable output voltages

Operating Temperature:-40°C TO +85°C

Efficiency up to 95%, Non isolated, no need for heatsink

Short circuit protection

Wide input voltage ranges 4.5~14VDC and 10~30 VDC

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Input Range	Output Voltage	Output Current	Efficiency	
	Vdc	Vdc	mA	(%)	Output Voltage (Vdc)
AS3000R1206-CF	4.5-14	0.59-6.0	3000	93	3.3
AS3000R2406-CF	10-30	3.0-6.0	3000	91	5.0
AS3000R2415-CF	10-30	5.0-15	3000	95	12

### Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Input Voltage Range	See table	4.5	12	30	V
Internal Input Filter	Capacitors		10		uF
No Load Input Current			30		mA

### Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance			±2	±3	%
Short Circuit Protection	Hiccup, automatic recovery				
Line Regulation	Vin=min to max at full load		±0.2		%
Load Regulation	0% To 100% F.L.(Vo≥ 2.5V)		±0.8		%
Current Limit			220		%
Ripple & Noise	100% F.L BW=20MHz	60	75	150	mVp-p
Dynamic load response (Recovery time)	50% load step change		120		us
Capacitive load	ESR > 1m ohm			500	uF

## General Specifications

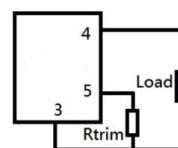
Parameters	Conditions	Min	Typ	Max	Units
Temperature Coefficient	-40°C ~ +85°C ambient	-1		+1	%/°C
Switching Frequency		270	300	330	KHz
Operating Temperature	With derating	-40		85	°C
Storage Temperature		-55		125	°C
Humidity	Non Condensing	5		95	%
Cooling	Free air Convection				
Case material	Open Frame				
Weight			2		g
Dimensions	AS3000R1206-CF		15.5x9.4x6.0		
	AS3000R2406-CF / AS3000R2415-CF		16.5x10.4x6.0		mm
MTBF(+25°C)	Using MIL-HDBK 217F		4.4x10 <sup>6</sup>		Hours

## Part Number

**AS3000 - R - 12 06 C F**  
**1 2 3 4 5 6**

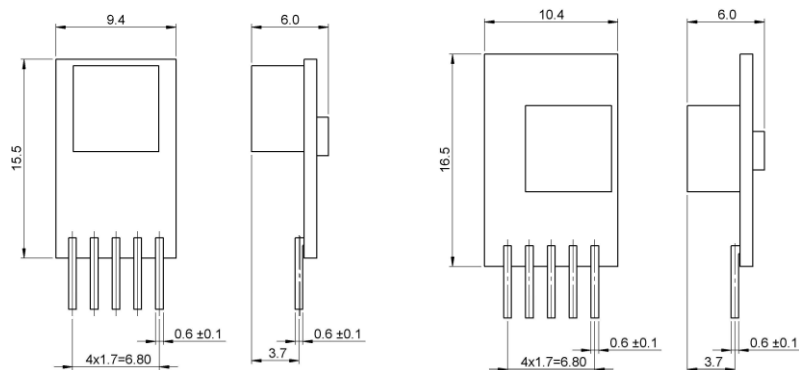
- 1:Series**
- 2:Regulated**
- 3:Input Voltage**
- 4:Output Voltage**
- 5:Short Circuit Protection Continuous**
- 6:Efficiency up to 96%**

## Trim Applications



Part Number	R trim [KΩ ]
AS3000R1206-CF	1.18/(Vo-0.59)
AS3000R2406-CF	11.2/(Vo-3)
AS3000R2415-CF	8.4/(Vo-5)

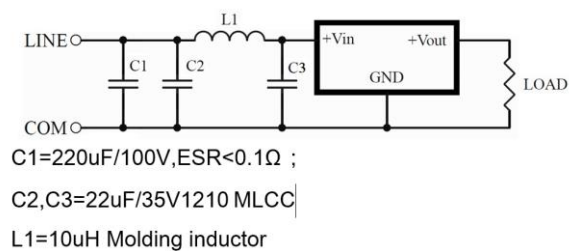
## Markings and dimensions



Unit : mm  
Tolerance : XX.X ±0.5 , XX.XX ±0.25

Unit : mm  
Tolerance : XX.X ±0.5 , XX.XX ±0.25

## Recommended Test Circuit



## PIN Assignment

Pin	1	2	3	4	5
Function	Remote On/Off	+Vin	GND	+Vout	Trim